

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 77789 MACROPHYTE ID: _____ LATITUDE: 28.504092
 COUNTY: Lake STORET #: GICE0003 LONGITUDE: -81.772872
 DATE: 8/1/17 TIME: 1347 SAMPLING AGENCY: FDEP
 SITE NAME: Lake Crescent WBID: 2878A
 FIELD ID/NAME: Lake Crescent GICE0003 LAKE SIZE: 115 acres RQ: 2017-07-06-12-48

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☐ Other (Specify) ☐ 100				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u>1.198</u>			
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy				Artificially Impounded ☐ Yes ☐ No			
STORMWATER INPUTS <u>3</u> Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16				Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11			
LAKESIDE ALTERATIONS <u>3</u> Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16				Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11			
BUFFER ZONE <u>3</u> Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16				89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11			
Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6				Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 ☒ 2 1			
Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6				Highly developed or disturbed (>70% of lakeside affected) 5 4 ☒ 2 1			
50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6				< 29% of shoreline with >18m buffer 5 4 ☒ 2 1			

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>7093010</u> Exp. Date: <u>4/18</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High				Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____ Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter Readings: Top: <u>0.3</u> <u>31.4</u> <u>6.1</u> <u>6.2</u> <u>84</u> <u>108</u> <u>0.05</u> Mid-Depth: _____ Bottom: <u>4.1</u> <u>28.6</u> <u>5.8</u> <u>4.5</u> <u>58</u> <u>108</u> <u>0.05</u>				Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) <u>2.3</u> Total Station Depth (M) <u>4.6</u> VOB ☐			
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____				Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: <u>N/A</u> Exp Date: <u>N/A</u> Algal Bloom/Algal ID Sample Taken? Yes ☒ No Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know				Abundance: Absent Rare Common Abundant Periphyton ☒ ☐ ☐ ☐ Nuisance Plants ☐ ☒ ☐ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☒ ☐ ☐ ☐			
Weather Conditions: <u>Sunny, clear, low winds</u>							
SAMPLING TEAM: <u>Natalie Ayala/Terry Riordan/Kalina Warren</u>				SIGNATURE: <u>[Signature]</u>		DATE: <u>8/1/17</u>	



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

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Data Qualified?

Yes / No

Location/STORET Station Name: Lake Crescent @ Center Date: 08/01/17
STORET # G1CE0003 WBID: 2878A Latitude: 28.504092
County: Lake RQ - 2017-06-12-48 ORG ID: 21FLLEN Longitude: -81.772872
Receiving Body of Water: _____ Field ID: G1CE0003

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Natalie Ayala		X	X			
Kalina Warren						
Terry Riordan			X	X	X	

Sampling Equipment	
☒ Sample Container	☐ Van Dorn ☐ Pole
☐ Carboy	☐ Syringe
☐ Dipper	☐ Other _____
Equipment ID _____	

Collection Method	
☐ Wading	☐ Via Boat
☐ From Shore	☐ Canoe/Kayak
☐ Other (note below)	☐ Electric Motor
	☒ Gasoline Motor

Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded		Matrix: <u>Fresh</u> Marine / DI								
Meter ID# <u>Betty 67</u>		Photos: <u>Yes</u> / No								
		Tide Falling: Yes / No / <u>Yes</u>								
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1347	0.3	4.6	6.2	84	6.1	0.05	2.3	108	31.4
CEN		4.1		4.5	58	5.8	0.05		108	28.6

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other _____
SBIO ID Numbers: SBIO-ID: 77789 RPS-ID: N/A Macrophyte-ID: 10575 LIMS#: 1918089

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☐ Ice ☒ H2SO4	7093010	4/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHL SUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains
1:1
Sulfuric Acid
SA - 7093010
EXP: 04/03/18
Warning!
See SDS

Notes:

Date: 08/01/2017

Time:

G1CE0003

Field ID ↑

STORET ↓

RQ-2017-06-12-48

G1CE0003

Signature:

Date:

Field Parameters Entered into LIMS: NA 8/2/17

Field Parameters QC in LIMS: 72 8/9/17

Date Migrated to STORET: CMO 9/1/17

Field Sheets Scanned/Saved: _____

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: GLC50003	DATE (M/D/Y) 08/11/17	LAKE NAME Lake Crescent	FIELD ID / NAME: GLC50003
ECO-REGION: 75C	COUNTY: Lake	SAMPLING LOCATION/DESCRIPTION: Lake Crescent @ center	LAKE SIZE: 115 acres
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☒	Surface water inflow present, but flow is rare, moderate to long water residence time ☒ NA	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐
HYDROLOGY			Impounded, hydrology of system artificially controlled ☐
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☐	Dark, discolored water (water color 20 PCU or higher) ☒
	Optimal	Suboptimal	Marginal
Secchi 13	Secchi > 3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 ☒ 12 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6
Vegetation Quality 18	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 ☒ 17 16	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants 15 14 13 12 11	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6
Stormwater Inputs 5	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6
Bottom Substrate Quality 13	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 16	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom 10 9 8 7 6
Lakeside Adverse Human Alterations 3	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 20 19 18 17 16	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10 9 8 7 6
Upland Buffer Zone 3	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6
Adverse Watershed Land Use 12	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial 20 19 18 17 16	15 14 13 12 11	10 9 8 7 6
TOTAL SCORE 67	COMMENTS:		

ANALYSIS DATE: 8/11/2017	ANALYST: Natalie Ayala	SIGNATURE: Natalie Ayala
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DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

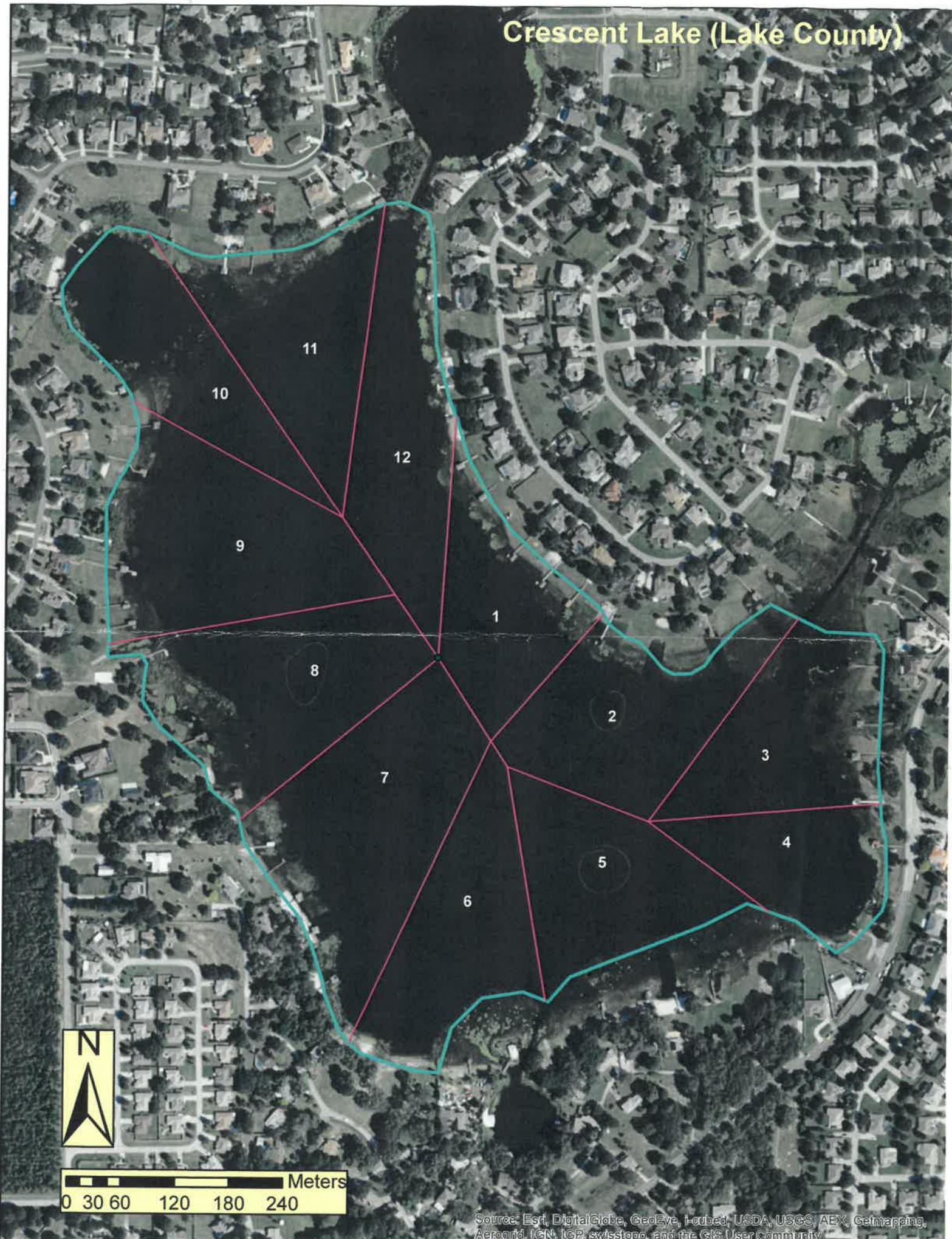
Waterbody: <u>Lake Crescent</u>		County: <u>Lake</u>		Date: <u>08/01/17</u>							
Analyst: <u>Natalie Ayala/Tony Riordan/Kate Warren</u>		Signature: <u>[Signature]</u>		STORET: <u>G1C6003</u>							
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 3, 6, 9, 12							
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.											
SPECIES	11	8	5	2	Collected? (✓)	SPECIES	11	8	5	2	Collected? (✓)
Acer rubrum	X					Fraxinus					
Alternanthera philoxeroides	X				✓	Fuirena scirpoides	X	X	X	X	
Amaranthus australis	X					Gordonia lasianthus					
Andropogon sp.						Habenaria repens					
Azolla filiculoides (A. caroliniana)						Hibiscus coccineus					
Baccharis sp.						Hibiscus grandiflora			X		
Bacopa caroliniana <u>1st mtn</u>	X	X	X	X	✓	Hydrilla verticillata					
Bacopa monnieri						Hydrocotyle sp.	X	X	X	X	
Bidens alba						Hygrophila polysperma					
Bidens laevis						Hymenocallis sp.					
Bidens mitis						*Hypericum fasciculatum <u>sp</u>	X				
Blechnum serrulatum						*Hypericum hypericoides					
Boehmeria cylindrica						*Hypericum myrtifolium					
Brasenia schreberi						Ilex cassine					
Cabomba caroliniana						Ipomoea aquatica					
Canna						Ipomoea sagittata					
Centella asiatica						Itea virginica					
Cephalanthus occidentalis	X	X				Juncus effusus					
Ceratophyllum demersum						*Juncus marginatus					
Chara sp.						*Juncus megacephalus					
Cicuta maculata						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana				X	
Colocasia esculenta						Leersia hexandra	X	X	X		
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
*Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnium spongia					
Cyperus haspan			X			Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos						*Ludwigia arcuata					
*Cyperus odoratus	X	X				*Ludwigia grandiflora					
*Cyperus surinamensis						*Ludwigia hexapetala					
Cyrilla racemiflora						*Ludwigia leptocarpa					
Decodon verticillatus						Ludwigia (native)	X			X	
Diodia virginiana						*Ludwigia octovalvis					
*Echinochloa crus-galli						*Ludwigia peruviana	X		X		
*Echinochloa muricatum						*Ludwigia repens					
Echinochloa walteri						Ludwigia suffruticosa					
Eclipta prostrata (E. alba)						Luziola fluitans (Hydrochloa carolinensis)	X	X			
Eichhornia crassipes						Magnolia virginiana					
*Eleocharis <u>bulbosus</u> <u>sp</u>			X			Mayaca fluviatilis	X	X	X		
Eleocharis cellulosa						Melaleuca quinquenervia					
*Eleocharis elongata						Micranthemum glomeratum					
Eleocharis equisetoides						Micranthemum umbrosum					
Eleocharis interstincta						Mikania scandens					
Eleocharis submersed viviparus					✓	Mimosa pigra					
*Eriocaulon compressum						Myrica cerifera	X	X	X		
*Eriocaulon decangulare						<u>fraxinus</u>	X	X	X	X	✓
Eupatorium capillifolium	X	X				<u>Kosteletzkya sp.</u>			X		

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Lake CrescentDate: 08/01/17

SPECIES	1	8	5	2	Collected? (✓)	SPECIES	1	8	5	2	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana		X			
*Myriophyllum laxum						Salvinia minima		X	X		
*Myriophyllum pinnatum						Sambucus canadensis		X			
Myriophyllum spicatum						Sapium sebiferum					
*Najas filifolia						Saururus cernuus					
*Najas guadalupensis						Schinus terebinthifolius	X				
*Najas minor						*Schoenoplectus californicus					
Nelumbo lutea	X		X			*Schoenoplectus pungens					
Nitella spp.						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nuphar sp.		X	X	X		Scirpus cubensis (Oxycaryon cubense)	X	X			
Nymphaea mexicana						Scirpus cyperinus					
Nymphaea odorata		X	X	X		*Sesbania sp.	X				
Nymphoides aquatica	X	X	X	X		Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.	X	X	X		
Panicum hemitomon	X	X	X	X		Thalia geniculata					
Panicum repens	X	X	X	X		Thelypteris interrupta					
Paspalidium geminatum	X	X	X			Thelypteris palustris					
*Paspalum repens						Triadenum virginicum					
Paspalum urvillei						Typha sp.		X			
Peltandra sp.						Urochloa mutica (Brachiaria mutica)					
Persea sp.						*Utricularia gibba (U. biflora)					
Pennisetum purpureum						*Utricularia foliosa	X				
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea	X	X		X	NA
Pistia stratioides						*Utricularia radiata				X	
Pluchea sp.						*Utricularia resupinata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
Polygonum hirsutum						Vitis sp.					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata	X	X	X	X		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						Salvinia minima NA			X		NA
Proserpinaca pectinata						Schinus terebinthifolius	X				NA
*Rhexia						Salvinia minima	X	X			NA
*Rhynchospora comiculata						Scirpus cubensis	X	X			NA
*Rhynchospora inundata						Scirpus cubensis				X	NA
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia	X		X	X							
Sagittaria latifolia											

Crescent Lake (Lake County)



Source: Esri, DigitalGlobe, GeoEye, Ikonos, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community